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| LevelsCategories | 21st Century Skills Unit Continuum of Teaching and Learning Practices | | |
| **1. Learning Environment**  **(Moving across the continuum from highly structured to independent learning)** | * Teacher’s role as facilitator of an active learning environment is supportive, with variations in the amount of direction and control * Teacher organized learning activities offer a minimum of alternatives * The teacher initiates the inquiry questions and guides the students to the resources. * Students learn skills of reading, writing, mathematics, design, inquiry, research, and computer applications in isolation from the context of the curriculum theme * Teachers structure activities to meet the needs of some of the students in the class * **Physical Setting:** where learning takes place * In the classroom with a variety of resources including a student accessed multimedia computers connected to the Internet | * Teaching and Learning Team acts as guides, facilitators, and partners in learning, encouraging independence within structure of procedures, rules, or established standards * Teaching and Learning Team offer a variety of learning alternatives * Inquiry questions are expanded on and refined by the learner and assessed through guided rediscovery * Students master skills of reading, writing, mathematics, design, inquiry, research, and computer applications in an integrated context of learning curriculum concepts * Teachers structure activities to meet the needs of the advanced and average learners * **Physical Setting:** where learning takes place * In the classroom with 2-6 multimedia Internet accessed computers spread around the room to allow for group interaction or in a pod outside a group of classrooms * Flexibly scheduled LMC * Flexibly scheduled computer lab attached to the LMC * Extended hours of LMC and lab | * The independent learners are engaged and motivated in addressing meaningful issues that extend beyond the classroom to real world experiences * Students organize their collaborative learning activities with little pressure from the teacher * Inquiry questions are generated and addressed by the collaborative learning team * Students transform the skills and knowledge gained from their investigations into innovative new ideas and products * Teachers structure activities to meet the needs of all learners including students with special needs * **Physical Setting:** where learning takes place * Virtually: universal access anytime, anyplace * Project activities, resources, assessment tools are available via the Internet |
| **2. Unit Focus** | * **Unit title** is a topic covered in the current curriculum (e.g., The Rainforest) * **Goals** * Include broad statements on how the teacher will prepare the students for new knowledge while examining various problems and questions related to the curriculum topic * **Objectives** * Contain active verbs that define what the teacher will do to teach the multiple skills and curriculum topic during the unit. * The number of objectives is realistic, given the scope of the project. * Can be measured and assessed with end result showing growth in skills, knowledge and attitudes * Are time limited * Describe conditions necessary to support accomplishment of the goals * **Standards Alignment** * Aligned to Wisconsin Model Academic Standards at the Content Levels | * **Unit title** contains reference to the problem/s to be solved (e.g., How Can We Save our Rainforests?) * **Goals** * Include broad statements on how the Teaching and Learning Team will support the learning of all students * **Objectives** * Contain active verbs the define what the teaching and learning team will do during the unit * **Standards Alignment** * Aligned to Multiple Wisconsin Model Academic Standards including the WI Information and Technology Literacy Standards * Aligned to Wisconsin Model Academic Standards at the Performance Levels | * **Unit title** includes the topic as well as the conceptual lens (e.g., The Rainforest: Environmental Preservation/Economic Development) * Goals * Include the four 21st Century skills needed in the Digital Age <http://www.21stcenturyskills.org/> * Include Universal Design Principles (UDL) for students with broad differences  <http://www.cast.org/research/udl/index.html> * Include broad statements on how the students will gain knowledge while examining various problems and questions related to the curriculum concepts. * Eg. Students will work in cooperative groups to prioritize, define and solve problems related to their particular focus. * Objectives * Contain active verbs that define student behavior and address the learning that will occur in regards to the curriculum concepts * Are differentiated indicating how the students’ multiple intelligences or varied learning styles will be addressed * Eg. By the end of the unit all students will communicate using technology a solution/s to the problem, backing up their solution with cited authoritative references * **Standards Alignment** * Aligned to Wisconsin Model Academic Standards and local benchmarks |
| **3. Planning Process (Who What, Where, When)** | * Written by one teacher with input from other professionals * Plan indicates how the teacher is accountable for successful learning * **Student Expectations**: * Relevant to the objectives * Indicate what is currently known about the curriculum topic * Title of student project includes the problem related to the curriculum topic * Correctly formatted citations and bibliography * Correct grammar and spelling * Correct facts * Students identify and clarify the problem/s * Students gather information from multiple sources of information * Students discuss various alternatives to solve the problem * Students expected to share new information in an informative method * **Timeline** * Realistic to accomplish objectives | * Written collaboratively by the Teaching and Learning Team (e.g., classroom teacher and library media specialist) * Plan indicates how each member of Teaching and Learning Team are accountable for successful learning * **Student Expectations**: * Brainstorm problems related to the topic * The diversified collaborative learning group defines the goals and determines resources and tools * The individuals in the group conduct substantive conversation with resource experts * Students choose the medium that will best communicate their information to an authentic audience * Students can persuasively communicate their interpretive opinion or informed solutions based on sound reasoning, researched facts and cited references * **Timeline** * Allows for considerations of other deadlines for students and the facilities | * Written collaboratively by several members of the Teaching and Learning Team(e.g., classroom teacher, library media specialist,:learning support, Title 1 teacher, speech and language pathologist, occupation/physical therapist; learning disability, cognitive disability, emotional disability teacher, student teacher, college or university professor) * Plan indicates how the students are accountable for successful learning * Student Expectations: * 21st Century Skills for the digital age will be developed <http://www.21stcenturyskills.org/> * Brainstorm additional higher level inquiry questions as new knowledge is gained. * Students develop problem solving skills tackled by adults in the real world. * Students develop a criteria for evaluating the validity and reliability of their information sources * Extensive preparation (e.g. storyboarding, web-mapping, outlining) * Students demonstrate they have gone beyond deeper understanding and create original position or product * **Timeline** * Students and parents are notified of deadline dates |
| **4. Problem/s & Scenarios**  **(Foundation of students' assignment)** | The problem/s to be solved and the scenarios that are developed address the first two levels of *Bloom’s Taxonomy of Educational Objectives****Knowledge level***: Students can identify keywords, synonyms, and related terms in order to locate more information***Comprehension level***: Students can translate or paraphrase notes from resources  * *Inquiry questions* ask for basic facts * Who? * What? * Where? * When? | The problem/s to be solved and the scenarios that are developed address the third level of *Bloom’s Taxonomy of Educational Objectives* and the *Big 6* Research Model  * ***Application level***: students can apply what they have learned to a different situation * ***Inquiry questions*** investigate conceptual learning * Why? | * The problem/s to be solved and the scenarios that are developed address the 4th. 5th. or 6th levels of *Bloom’s Taxonomy of Educational Objectives* and the *Big 6* Research Model * ***Analysis level***: students can note fallacies and compare and contrast basic concepts * ***Evaluation level***: students can assess their own work and work of other team members * ***Synthesis level***: students are creative and new thought structure is established and communicated to an authentic audience * ***Inquiry questions*** ask for deeper understanding of key concepts * What might have happened if \_\_\_\_? * How is \_\_\_\_\_ similar to/different from \_\_\_? * Should the students in the school \_\_\_? * How might our solution be viewed from the perspective of \_\_\_\_\_? * What criteria will we use to evaluate the success of our ideas? |
| **5. Assessment Strategies** | * Authentic assessment tools and criteria are designed by the teacher to address the process of thinking , communication, and performance of real tasks * Teacher and students assess each other during the process * Assessment tools based on the Wisconsin Model Academic Standards * Includes a variety of assessment strategies (e.g., Rubrics, Checklists, Journals or Learning Logs, Conferencing, Portfolio) | * Assessment tools and explicit criteria are designed collaboratively by the Teaching and Learning Team * Students in the school or via electronic means participate in assessment * Assessment tools based on multiple Wisconsin Model Academic Standards at the Performance Levels | * Students independently design assessment tools based, on explicit criteria. * Audience other than peers will participate in assessment (e.g., community members, parents, other students via the Internet) * Assessment tools based on the Wisconsin Model Academic Standards and local benchmarks |
| **6. Tools and Resources** | * Varied in scope, sequence, and cultural diversity * Free of bias and include varied viewpoints * Multiple ability levels * Students learn basic skills for information access and analysis from the library media specialist * Students can access and select quality resources from the school’s LMC collection or other appropriate collections via the schools network * Teacher evaluated Internet resources are included * Students learn basic technology application skills from the technology professional * Assistive Technologies are researched and attained for the individual learners * *Wisconsin Assistive Technologies Initiative* [http://www.wati.org](http://www.wati.org/) * *Center for Applied Special Technologies* [http://www.cast.org](http://www.cast.org/) | * Students learn to critically evaluate multiple resources and tools from the library media specialist * Students can access and select quality resources from the school’s LMC collection or other appropriate collections via the Internet in the school * Library Media specialist evaluated Internet resources are included * Students work collaboratively to share and teach each other skills that were learned from a previous project | * Students determine criteria for choosing best tools and resources to get the job done * Students can access the many resources available at school from their home via the Internet (e.g., LMC Online Catalog and purchased Internet sites) * Student evaluated Internet resources are included * Students independently learn advanced skills from “experts” in the classroom, online, or from “help” menus * Students have contacted an adult “expert” as a resource either in person or via e-mail * Resources used in text and/or bibliography are hot-linked when applicable |
| **7. Reflections** | * Teachers who designed the unit include how and why they revised strategies * Students who worked on the project include highlights from their learning journals | * Other teachers, parents and students within the school are encouraged to review and comment on the unit      * Guided questions help readers assess the unit | * Teachers and other interested people from outside the school district are encouraged to review and comment |